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NOTICE OF ALLOWANCE AND FEE(S) DUE

49056

7590

06/10/2009

LIEBERMAN & BRANDSDORFER, LLC
802 STILL CREEK LANE
GAITHERSBURG, MD 20878

EXAMINER

JOHNSON, JOHNESE T

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 06/10/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,576	12/08/2003	Frank S. Filz	BEA9-2003-0016-US1	3051

TITLE OF INVENTION: VERSION CONTROL OF METADATA

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/10/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

49056 7590 06/10/2009
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802 STILL CREEK LANE
GAITHERSBURG, MD 20878

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

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10/730,576 12/08/2003

Frank S. Filz

BEA9-2003-0016-US1

3051

TITLE OF INVENTION: VERSION CONTROL OF METADATA

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nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/10/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
JOHNSON, JOHNESE T	2166	707-008000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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49056	7590	06/10/2009	EXAMINER	
LIEBERMAN & BRANDSDORFER, LLC 802 STILL CREEK LANE GAITHERSBURG, MD 20878			JOHNSON, JOHNESE T	
			ART UNIT	PAPER NUMBER
			2166	

DATE MAILED: 06/10/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 758 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 758 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability**Application No.**

10/730,576

Applicant(s)

FILZ, FRANK S.

Examiner

Johnese Johnson

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 3-12-2009.
2. ☒ The allowed claim(s) is/are 1,4-6,8-12 14, 16-19, and 21-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Isaac M. Woo/
Primary Examiner, Art Unit 2166

DETAILED ACTION

1. This office action is in response to the Amendment after Final filed on March 12, 2009, in which claims 1, 3-6, 8-12, 14, 16-19, and 21-25 are presented for further examination.

Allowable Subject Matter

2. The present application has been thoroughly reviewed. Upon searching a variety of databases, the examiner respectfully submits that claims 1, 4-6, 8-12, 14, 16-19, and 21-25 are allowable in light of the Applicant's arguments and in light of the prior art made of record.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given via fax and phone interview with Rochelle Lieberman (Reg. No. 39,276) on 6-5-2009.

The application has been amended as follows:

Art Unit: 2166

In The Claim:

1. (Currently Amended) A method of controlling interoperability of members of a cluster, comprising:

creating a version control system including a disk header record of a shared storage resource and a version control record within said shared resource, said version control record to

organize meta data in a known location in said shared resource in communication with said cluster, said version control record comprising all versions of each type of data structure in said shared resource;

the data structure in the shared resource representing target data of software application operating on cluster nodes, wherein at least two cluster nodes operate different version of said software application;

validating software compatibility of a new cluster member with target data retained in said shared resource assigned to the cluster, separately using the disk header record and the version control record prior to said new cluster member joining said cluster. including scanning said version control record for a data structure version conflict; and

an application operating on said new cluster member accessing said target data responsive to validation of software compatibility.

3. Canceled

8. (Currently Amended) A computer system, comprising.

at least two nodes to operate in a computer cluster, each of said nodes having a processor and memory, and in communication with a storage network;

a data structure in the shared resource to represent target data of a software application;

a version control system in communication with said nodes, said version control system having a disk header record of a shared storage resource and a version control record within said shared resource, said version control record to organize meta data in a known location in said shared resource in communication with said cluster;

said version control record inclusive of all versions of each type of data structure in said shared resource;

the data structure in the shared resource representing target data of software application operating on cluster nodes, wherein at least two cluster nodes operate different version of said software application; and

a membership manager in communication with said version control system to validate compatibility of a new cluster member with target data retained within each of said data structures with use of said disk header record and said version control record prior to acceptance of said new cluster member, including said manager to scan said version control record for a data structure version conflict

14. (Currently Amended) An article comprising:

a data structure in a shared resource representing target data of a software application;

a computer-readable recordable data storage medium including instructions comprising:

instructions to provide a version control system including a disk header record of a shared resource and a version control record of said shared resource, said version control record to organize meta data in a known location in said shared resource, said version control record inclusive of each type of data structure in said shared resource; the data structure in the shared resource representing target data of software application operating on cluster nodes, wherein at least two cluster nodes operate different version of said software application; and instructions to validate compatibility of a new cluster member with target data retained within storage media in said shared resource assigned to a cluster separately using said disk header record and said version control record prior to said new cluster member joining said cluster, including said validate instructions to scan said version control record for a data structure version conflict

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: The present invention is directed a method and system to efficiently determine compatibility of the server node and the shared resource prior to cluster membership.. The closest prior art, Frank et al. (US Pat. No. 6,871,222) is directed to a method involves defining a shareable storage device to store data for a network. A message location is defined on the device. Membership is granted in a network cluster to a node if the node has access to the location. The membership of the node in the cluster is revoked if the node ceases to have access to the location. The operation of the cluster

is ceased if no node has access to the device. Szabo et al. (US Pat. No. 7,065,746), is directed to computerized method of managing an integrity of an integrated applications environment where data is extracted from and transferred among often disparate applications via integration components, comprising the steps of: detecting a change in said integrated applications environment, said integrated applications environment including a plurality of software applications and integration components, said software applications running on a plurality of systems and said integration components facilitating transfer of data among said software applications, said data having one or more of different usages, different data formats, and different data types among said software applications; identifying substantially all integration components and software applications of said integrated applications environment for which said transfer of data would be affected by said change; and notifying one or more responsible parties for each identified software application and integration component. Short et al. (US Pat. No. No. 6,178,529), is directed to a method and system in a server cluster for monitoring and controlling a resource object, such as a physical device or application. A cluster service connects to a resource monitoring component to control and monitor the health of one or more resource objects. The resource component includes a plurality of methods, common to all such resource components, for calling by the resource monitor to control and monitor operation of the resource object there through. The common methods enable the cluster server to treat all resources similarly without regard to the type of resource. Engel et al. (US Pat. No. No. 6,681,389), is directed to an associated software update assist script is used in each of the steps of installing, activating, backing out, reactivating and converting of

updated platform software/updated application software. Neither Frank , Szabo, Short, nor Engel either singularly or in combination, anticipate or render obvious the recited features "the data structure in the shared resource representing target data of software application operating on cluster nodes, wherein at least two cluster nodes operate different version of said software application; validating software compatibility of a new cluster member with target data retained in said shared resource assigned to the cluster, separately using the disk header record and the version control record prior to a said new cluster member joining said cluster; and an application operating on said new cluster member accessing said data responsive to validation of software compatibility". These features, in conjunction with all other limitations of the dependent and independent claims render claims 1, 4-6, 8-12, 14, 16-19, and 21-25 are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

/J. J./
Examiner, Art Unit 2166

June 8, 2009

/Isaac M. Woo/
Primary Examiner, Art Unit 2166